indicated telephone number and send a message named SALES to that number. After the message is sent, it will ring the phone for voice communication with a selective ring #4 associated with a particular individual at that number. This will inform that particular individual that the system is ready for voice communication.

The description of the above features is intended to illustrate the great versatility of the present invention. While the system has been described with respect to an interconnection of certain pieces of hardware and has been described as controlled by a certain program, it is understood of course that many other features could be added simply by changing the program stored in the erasable programmable read only memories Z12 and Z13. The programs stored in memory could, of course, be custom tailored to fit the needs of particular individuals or otherwise modified to make available features which might be found particularly useful for particular classes of users.

In another embodiment, and now the preferred embodiment, the program for controlling the operation of the microprocessor, as seen by a user, has been written so that the user is not required to memorize, or look up in a reference list, the particular sequence of key depressions to accomplish a particular sequence of key depressions to accomplish a particular operation. Such a system is referred to as a menu driven system. In a menu type program, the user is not required to remember any key depression sequence to enter commands. Instead the user is prompted by the program which presents a decision to the user in the form of a question or selection. The user is then only required to answer the question by choosing among a limited number of possible answers. Each answer may be communicated to the microprocessor by the depression of a corresponding single data entry key. The answers to the questions presented by the program then serve as commands to the microprocessor. Such a program and the operation thereof is explained in Exhibits A & B attached to the application file.

The menu program first asks the user to select the mode in which the user desires to use the data system. After the user selects the desired mode, the program presents other options in the form of questions and similarly requests the user to enter any data required to operate in that mode. The user does nothing but select from available options and provide the required data, so that full operation of all of the features may readily be achieved without any substantial training of the users.

The system as described herein and the features discussed are intended only for purposes of illustration and discussion. It is of course contemplated that many other features could be added and various changes and modifications in the system could be accomplished without departing from the spirit and scope of the invention.

What is claimed is:

1. A self contained portable communication system for coupling to a telephone line comprising:

a keyboard terminal housing:

a microprocessor located within said keyboard terminal housing;

real time means, coupled to said microprocessor;

a keyboard located on said keyboard terminal housing and having a plurality of alphanumeric data entry keys comprising a full alphanumeric key set in a nonorthogonal typewriter array in communication with said microprocessor;

memory means located within said key board terminal housing and in communication with said microprocessor for storing a program for controlling the operation of said microprocessor;

random access memory means in communication with said microprocessor for temporary storage of data;

telephone line interface means for coupling to a phone line, said telephone line interface means being means for receiving electrical signals from and providing electrical signals to a phone line, including an off hook signal to maintain a phone line connection;

a telephone handset having a speaker for converting electrical signals to audio signals and a microphone for converting audio signals to electrical signals to be provided to said phone line;

a one line display means, mounted in said keyboard terminal housing and coupled to said microprocessor;

at least one appliance control device in communication with said microprocessor and in communication with at least one appliance;

whereby a user may depress data entry keys to enter data into said random access memory to cause said microprocessor to compute the cost of a telephone call placed through said communication system and to display the total cost on the display at the end of the phone call.

2. The communication system according to claim 1 wherein depression of a preselected set of data entry keys instructs said communication system and said at least one appliance control device to turn said at least one applicance on and off repeatedly upon receipt of an incoming telephone call and to keep said at least one appliance turned on after said call has been answered until the user of said communication system hangs up at which time said at least one applicance is turned off.

3. The communication system of claim 1 wherein depression of any data entry key during a preselected time span of a twenty four hour day will instruct the communication system to place a telephone call to a preselected number.

4. The communication system according to claim 1 further comprising a message recording and playback mechanism, coupled to said microprocessor, whereby user depression of a preselected set of data entry keys will instruct said communication system, between preselected times of the day, to answer incoming calls without ringing and to transmit a preselected message in response to said incoming calls and to receive and store an incoming message.

5. The communication system according to claim 4 wherein depression of a preselected set of data entry keys will instruct said system to automatically dial a preselected telephone number and transmit a preselected message.

6. The communication system according to claim 4 wherein depression of a preselected set of data entry keys will instruct said system to place a telephone call to each telephone number between two preselected numbers and on connection of each call, or on passage of a specified time thereafter, to turn on a preselected applicance, and on passage of a preselected time after connection of the call, or when the call is disconnected, to turn off said preselected appliance.

7. A system comprising first and second communication systems, each having: